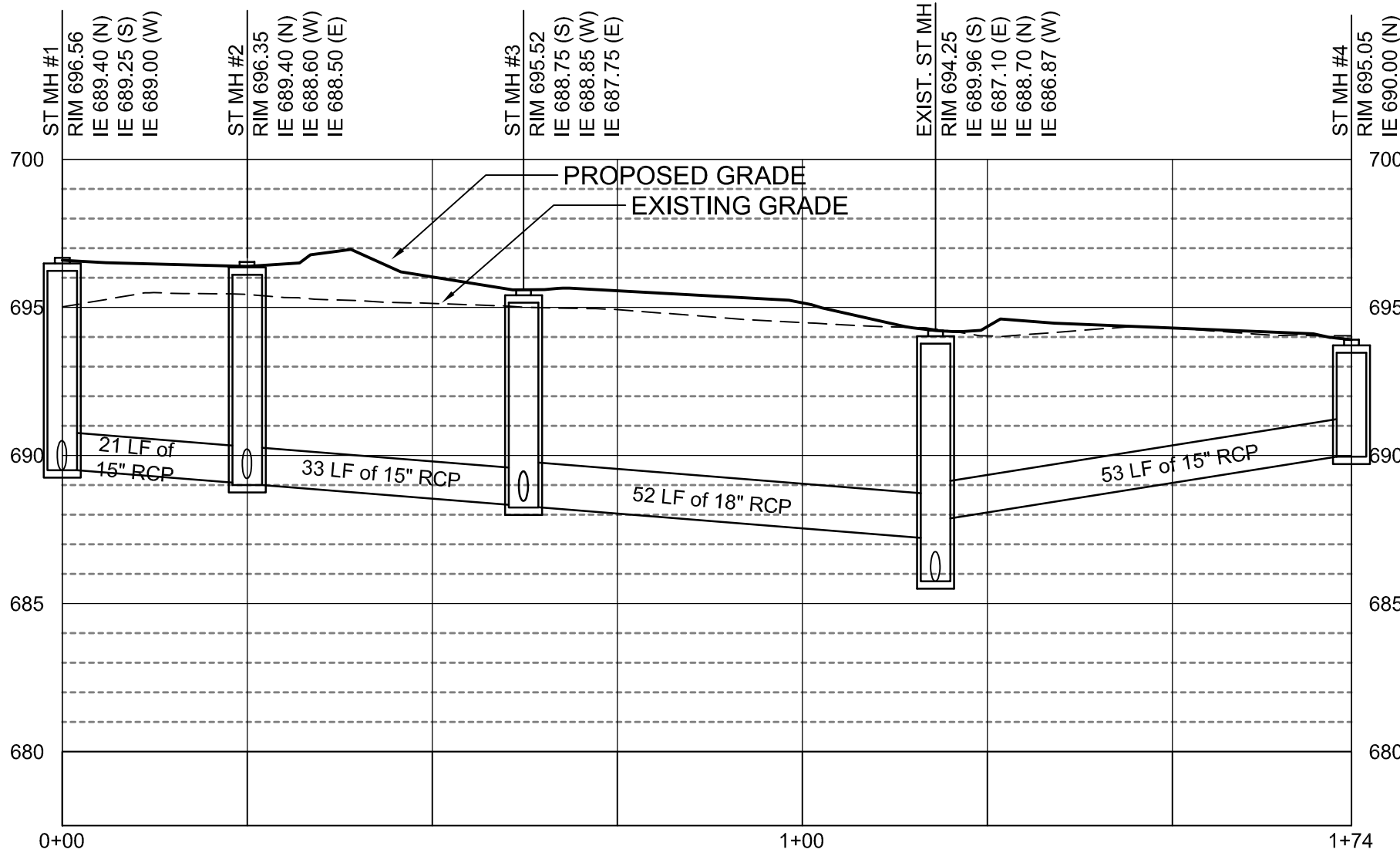
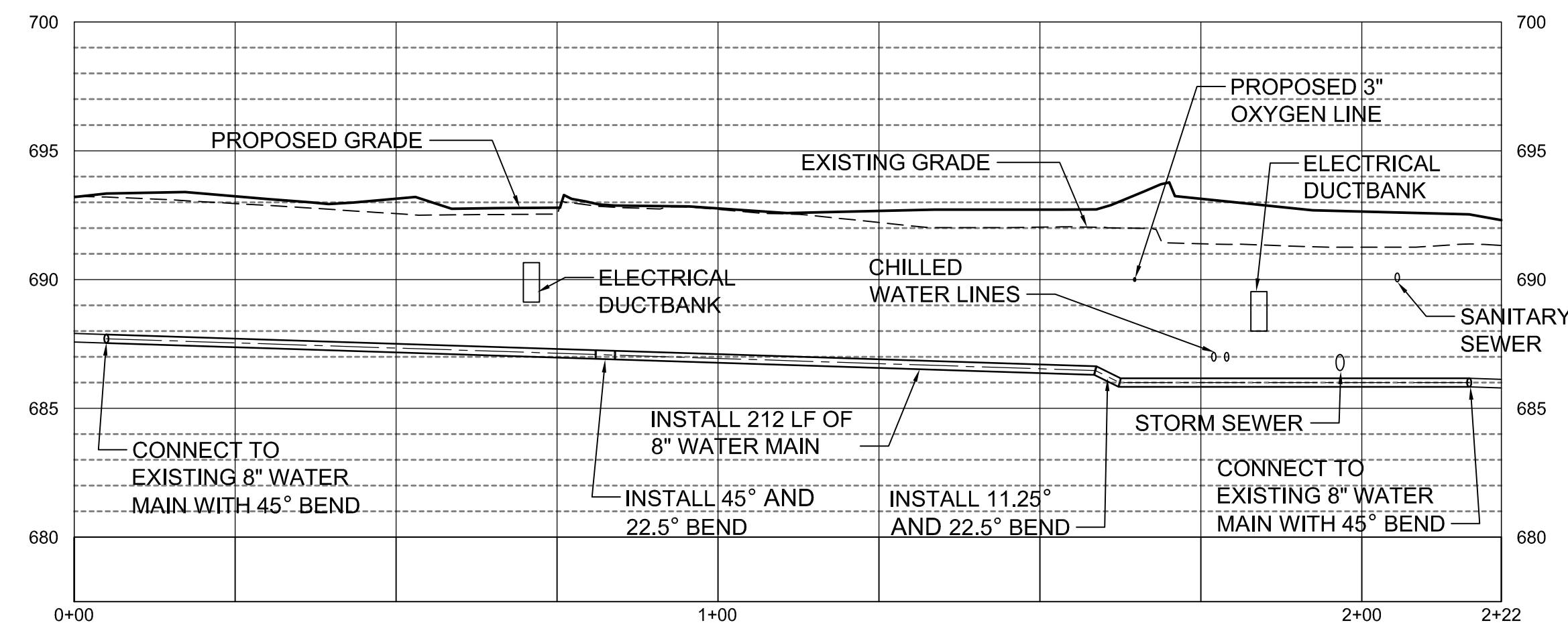


- UTILITY CONSTRUCTION NOTES**
1. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR HAS A CONTRACTUAL OBLIGATION TO COMPLY WITH ALL APPLICABLE LAWS AND OR REGULATIONS INCLUDING THOSE OF OSHA. AT NO TIME WILL EITHER THE OWNER OR THE ENGINEER TAKE RESPONSIBILITY FOR EITHER THE MEANS OF THE WORK OR THE SAFETY OF THE CONTRACTOR'S EMPLOYEES.
  2. LOCATION, SIZE, AND DEPTH OF BURIED UTILITIES ARE ILLUSTRATED BASED ON AVAILABLE RECORDS FROM THE UTILITY OPERATING AUTHORITY. RECORD LOCATIONS ARE FIELD VERIFIED BASED ON OBSERVABLE SURFACE FEATURES SUCH AS MANHOLES, VALVE BOXES, EVIDENCE OF TRENCHES, ETC. OR FIELD MARKING BY THE OPERATING AUTHORITY WHEREVER POSSIBLE. EXCAVATIONS HAVE NOT BEEN MADE TO VERIFY LOCATIONS OR DEPTH OF BURIED UTILITIES. EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR.
  3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT EACH UTILITY'S OPERATING AUTHORITY AND SCHEDULE JOINT MEET LOCATES. THE CONTRACTOR SHALL VERIFY WITH EACH UTILITY'S OPERATING AUTHORITY THAT LOCATES HAVE BEEN PERFORMED. IOWA ONE CALL SYSTEM: 1-800-292-8989. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHALL WORK TO EXPLORE AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES AT LEAST 100 FEET IN ADVANCE OF THE EXCAVATION WORK. IN THE EVENT THAT A UTILITY IS DISCOVERED THAT WAS NOT SHOWN ON THE DRAWINGS OR A SUBSTANTIAL DEVIATION IN LOCATION OR ELEVATION OF A KNOWN UTILITY EXISTS, THE CONTRACTOR SHALL REPORT IT TO THE OWNER'S REPRESENTATIVE AS SOON AS DISCOVERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ALL DAMAGED UTILITIES THAT HAVE BEEN LOCATED PROPERLY.
  4. CONTRACTOR SHALL PROTECT ALL UTILITIES AND TUNNELS FROM DAMAGE DUE TO OPERATION OF HEAVY EQUIPMENT. ALL EQUIPMENT SHALL HAVE EXHAUST SCRUBBERS. HAND EXCAVATION WILL BE REQUIRED WHEN EXPOSING EXISTING UTILITIES.
  5. THE CONTRACTOR IS REQUIRED TO KEEP ACCURATE CONSTRUCTION RECORD DOCUMENTS INCLUDING TOP OF PIPE ELEVATIONS FOR UTILITIES AT EACH CHANGE IN PROFILE OR ALIGNMENT.
  6. THE OWNER SHALL OPERATE ALL VALVES AND HYDRANTS.
  7. THE CONTRACTOR IS REQUIRED TO BACKFILL THE TRENCH WITH SUITABLE MATERIALS AND MEET COMPACTION REQUIREMENTS. THE COST TO HAUL OUT EXISTING MATERIALS AND BRING IN NEW MATERIALS OR TO CONDITION EXISTING SOILS IS INCIDENTAL TO THE PROJECT.
  8. SHORING FOR UTILITY INSTALLATION MAY NOT BE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN IF SHORING IS NEEDED IN ADDITION TO WHAT IS SHOWN ON THE DRAWINGS BASED ON THE OWNER'S REQUIREMENTS FOR VEGETATION/STRUCTURE/PAVING PROTECTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PLAN ALL SHORING. SUBMIT DESIGN OF SHORING TO OWNER AND SHIVE-HATTERY FOR REVIEW PRIOR TO INSTALLATION. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FROM THE OWNER FOR SHORING.
  9. ALL PIPES MUST BE TEMPORARILY CAPPED OVERNIGHT WITH WATER TIGHT FITTINGS.
  10. PHASE WORK TO MEET UTILITY OUTAGE AND PROJECT SCHEDULE REQUIREMENTS. COORDINATE ALL UTILITY OUTAGES WITH OWNER OF UTILITY.
  11. ALL CONDUITS AND PIPING PENETRATING TUNNEL, BUILDING AND VAULT WALLS SHOULD HAVE LINKSEALS AND A BENTONITE CLAY BACKFILL.
  12. UTILITIES AND OTHER SITE FEATURES SCHEDULED FOR DEMOLITION ARE NOT SHOWN ON THE SITE UTILITY PLAN. REFER TO SITE PREPARATION AND DEMOLITION SHEET, 2-C2.
  13. ALL UTILITIES CROSSING THROUGH EXCAVATION TRENCH SHALL BE SHORED/SUPPORTED AS REQUIRED TO PROTECT THE UTILITY. SOME NON-REINFORCED CONCRETE ENCASED DUCTBANKS MAY EXIST ON SITE THAT WILL REQUIRE SPECIAL SUPPORT/SHORING. ALL SHORING/SUPPORT SYSTEMS ARE SUBJECT TO APPROVAL BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO UTILITIES CAUSED BY CONSTRUCTION ACTIVITIES.
  14. SEE UTILITY DETAILS FOR TYPICAL UTILITY TRENCH AND EMBEDMENT DETAILS.
  15. FLOWABLE MORTAR BACKFILL SHALL BE USED BETWEEN ALL EXISTING OR NEW UTILITIES WHERE REQUIRED COMPACTION CANNOT BE OBTAINED. FLOWABLE MORTAR SHALL BE FORMED AND SHALL HAVE BOND BREAKERS BETWEEN MORTAR AND ALL UTILITIES AND/OR STRUCTURES. COMPRESSIVE STRENGTH SHALL BE NO MORE THAN 90 PSI.
  16. OXYGEN LINE MUST BE MAINTAINED VIA EMERGENCY INLET OR TANKS ON HOSPITAL WARDS AT ALL TIME BY THE CONTRACTOR. CONTRACTOR TO COORDINATE SHUTDOWNS OF LINE WITH VA. MAXIMUM SHUTDOWNS ARE LIMITED TO 4 HOURS.



**WATER MAIN PROFILE**  
VERT: 1"=20'    HORIZ: 1"= 5'

**STORM SEWER PROFILE**  
VERT: 1"=20'    HORIZ: 1"= 5'

<div><p>2834 Northgate Drive   Iowa City, Iowa 52245 319.354.3040   fax: 319.354.6921   shive-hattery.com Iowa   Illinois   Missouri</p></div>	Drawing Title <b>SITE UTILITY PLAN</b>		Project Title <b>RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS</b>		Date: 12-05-2014 CONSTRUCTION DOCUMENTS Project No. DVA#636-311 S-H#110240-0	
	Approved: Division Chief	Building Number <b>2</b>	Checked ALW	Drawn EJM	DRAWING NO. <b>2-C7</b> Dwg. 5 of 7	
	Approved: Service Director	Location IOWA CITY VA HEALTH CARE SYSTEM IOWA CITY, IOWA				